

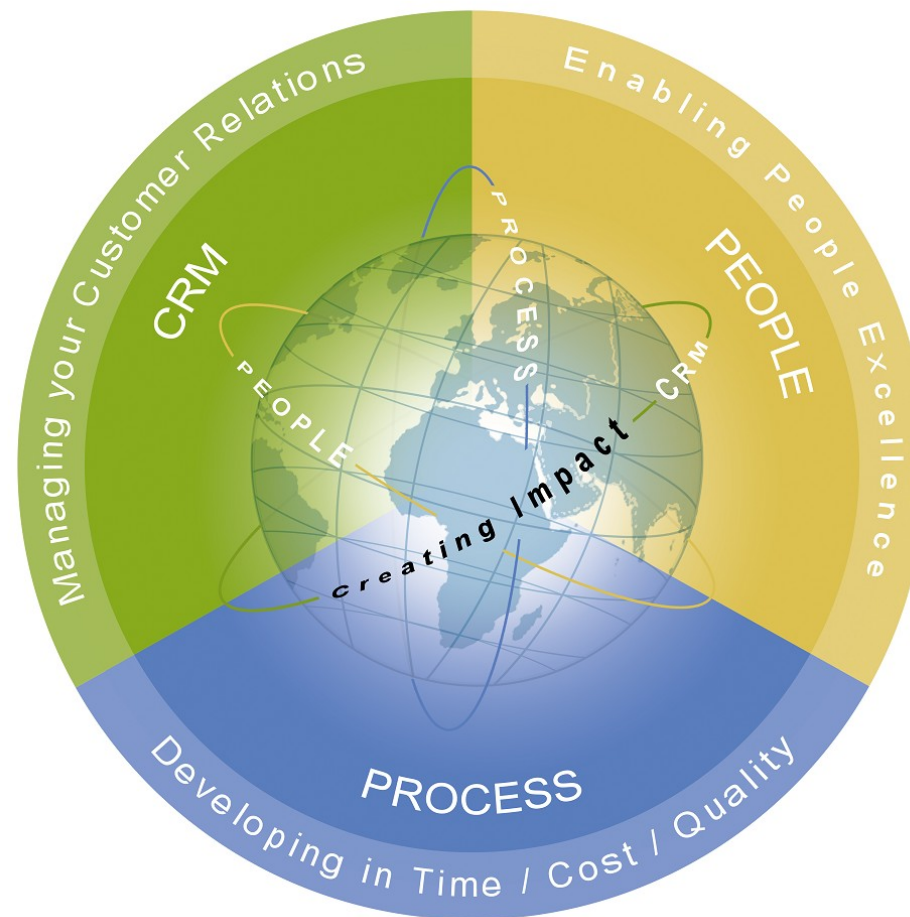
Best Practices in Teaching CMMI®

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March 2008

SEPG
#1337

Presentation



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- » Fun Stuff
 - » Using real life examples
 - » Ongoing exercises throughout the course
 - » Teaching IPPD
 - » Different Course Layouts/Audiences
 - » Understanding Generic Goals and Capability Levels
 - » Easing life of Participants
 - » Feedback
-
- » Add-on to last years tutorial on teaching CMMI
 - » Focus on further best practices to teach CMMI



- » Use any of the following at your own risk
- » None of the upcoming examples are SEI-recognized alternative exercises for the official CMMI Intro class
- » But they might help you to
 - » expand and add to the existing material
 - » create added value to any CMMI training you might teach for your organization or appraisal team or your customer
 - » find more instructive ways to explain things
 - » get you into and out of your comfort zone
 - » get you thinking about your CMMI understanding
- » Not all we say is on the slides...



- » Problem: Getting the audience focused after a break
- » Solution: Use video or audio clips to start after each break
- » Advantage:
 - » Laughter and loosing participants up
 - » Fun facilitates learning
 - » People will return on time
 - » Fun creates motivation for the class
 - » Fun facilitates communication between instructor and class
 - » Ideally you can connect the clip to course content
- » Caveat:
 - » Please ensure/request any needed copyrights/permissions!
 - » Avoid any discriminating/offending contents!
(this may strongly depend on the local culture)
 - » Ideally, you create your own clips!









» Problem: Simple exercise across PAs with hands on learning

» Solution:

1. Start with a simple scenario (be creative: e.g., cooking the perfect egg, become a sport champion). 5"

2. Split in small groups and ask each group to create a policy for REQM to your chosen scenario (REQM, GP 2.1) 10"

3. Debrief Solutions 10"

4. Brainstorm with all participants on a checklist for good policies (OPF/OPD/GP2.5/GP2.7) 10"

5. Conduct Peer Reviews (VER, PPQA, IPM)

1. New group mix: need 1 author, 2-3 reviewers; hand them a simple review process and ask them to first understand and adapt it to their need, then to review the policy using the checklist and review process... 10"+10"

2. Create one special group (without telling others): tell them to create a PPQA process for peer reviews and to conduct process checks in the ongoing reviews, and prepare a report 10"+10"+5"

6. Watch the show :o)



» Advantage:

- » Fun
- » covers multiple PAs,
- » hands on, can be understood by everyone
- » Gets people out of their routine thinking
- » Re-use of results throughout the course.

» Caveat/Hints:

- » needs some preparation and good facilitation
- » can take time,
- » can be expanded to other PAs (e.g., creating your own peer review process for OPD).



- » Problem: Participants have no clue what IPPD is all about
- » Solutions:
 1. Present definition of an integrated team
 2. Brainstorm with all on examples for integrated team 5"
 3. Split into two groups and ask all to quickly brainstorm on "Success Factors for Integrated Teams" on flipcharts 5"
 4. Walk through IPPD now; usually all key issues have already been collected (refer to flipcharts) 10"
- » Advantage:
 - » Easy to implement
 - » Allows very quick understanding of IPPD principles
- » Suggestion:
 - » Pick IPM SG 3 to walk through some SPs in detail in the model





- » Potential different audiences:
 - » Process Improvers
 - » Project leads/managers
 - » Developers/Tester
 - » Line Management
 - » Executive Management
 - » ... and worst case: other consultants :o)
- » Potential different course settings:
 - » 2h CMMI Overview
 - » 2d CMMI Awareness Training
 - » 3d **official CMMI Intro**
 - » 4d expanded **official CMMI Intro**
 - » 4d expert workshop on CMMI Interpretation
 - » E-Learning
- » Ensure permission for any used SEI material!



- » Problem: How does it “feel” to be on a Maturity Level?
- » Solution: Racing car simulation with force feedback wheel
 - » ML 1: drivers get only feedback from the wheel after hitting an obstacle (screen is covered)
 - » ML 2: drivers additionally see some cockpit instruments
 - » ML 3: drivers additionally get rear mirror view
 - » ML 4: drivers get full sight & track info (statistical data)
 - » ML 5: drivers go into continuous learning mode
- » Advantage: real life experience and fun
- » Caveat/Hints:
 - » lots of preparation work needed
 - » Works for smaller groups or management settings



[original idea by Gerhard Fessler, Robert Bosch GmbH]

- » Problem: Lack of insight in what is expected from the next higher/lower management level.
- » Solution: Elicit Expectations
 1. Ask to split into groups with common management level/hierarchy in each group
 2. Ask each group to document its expectations for successful process orientation to the next higher and lower management level. 20"
 3. Debrief and discuss 20"
- » Advantage:
 - » Makes gaps in understanding / expectations visible
- » Caveat/Hints:
 - » works well in in-house settings
 - » needs strong facilitation skills to avoid finger pointing



» Idea:

- » Use the Matrioschka principle ("Russian Dolls")
- » It explains the "based on" and "includes" for GG's and CL's

» What is needed:

- » Procure a set of "Russian Dolls" of at least 5 nested ones.
- » You may label the smallest one "GG1" and so on.



» Execution:

- » Use the smallest one to explain that this is GG1/CL1 and this one does not contain smaller ones.
- » Put the smallest one into the next larger one to illustrate that GG2/CL2 builds on and includes GG1/CL1.
- » Go on until GG5/CL5.
- » Explain that by opening a larger doll, you always want to find a smaller doll!



- » Show the students that you care for them:
 - » In the morning, put small “happy” chocolates on their desks
 - » Physical exercise after lunch (e.g. stretching, breathing)
 - » Look at the body language and face expressions of the students to find out about a break needed
 - » Showing video & audio clips....
 - » Take the students out for a dinner at a nice restaurant (best on the evening of the second day)
- » Self check game at the end of the class:
 - » Should enable a self test of the acquired knowledge and learning progress
 - » Prepare some multiple choice questions on a handout
 - » Give 10-15 minutes to fill out
 - » Discuss correct answers with the class
 - » Avoid scores and ratings
 - » May be done as a group exercise, but also by each individual



- » Additional material:
 - » Often there is not sufficient time to cover much additional material
 - » You may use “evening workshops” or “lunch breaks” to cover additional material.
 - » Additional material should be of common interest for the class or demanded by the students
 - » Examples of additional material are: SCAMPI methods, other models such as SPICE, ITIL, P-CMM, other appraisal methods
 - » Guest speakers: Students, process group people (depends on the setting of the class) and others may give short presentations to related topics, such as “the relation of the our organizational process to CMMI”, or “psychological aspects of rating”
 - » The topics of guest speakers emphasize the importance and authenticity of the CMMI contents. They also focus the attention of the students



- » Describe an issue/problem/risk of your projects/organization to your neighbor.
- » Answer in CMMI – English:
E.g., “these 3 Process Areas can help you deal with it”
- » A simple solution to:
 - » Getting to know each other;
 - » refreshing CMMI contents;
 - » keeping individuals awake
- » Caveat/Hints:
 - » agree on confidentiality within classroom at beginning of course
 - » Takes typically 3 to 5 minutes
 - » Can be conducted for every Process Area



- » Problem: Getting early feedback on your performance as presenter/instructor
- » Solutions:
 - » Flash Feedback at end of each day:
 - “How do you feel?”
 - “Any wish for tomorrow?”
 - » Measuring (e.g., via placing self sticking dots on poster) at each break
 - Speed (high, ok, low)
 - Interest (high, ok, low)
 - Relevance (high, ok, low)
- » Advantage:
 - » Timely feedback on participants wishes and expectations
- » Caveat/Hints:
 - » Choose appropriate points in time
 - » Takes typically 1 minute per participant



- » We appreciate any feedback you can give us (email, discussion, talk afterwards)!
- » Let us do a quick vote!
- ☺ Thumbs up = I learned a lot and had fun
- ☹ Thumbs straight = I survived
- ☹ Thumbs down = What was this about?... just woke up
- » ... and don't forget your session feedback (#1337)



- » Thank you very much for your attention and participation!
- » Good luck for your future CMMI presentations and courses!

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Version	draft / for review / released	Date	Comments/Change History	Responsible
0.01	Draft	04.01.2008	Initial version, sketch	C. Hertneck
0.03	Draft	08.01.2008	Ideas from WR	W. Russwurm
0.04	For Review	08.01.2008	Formatting, phrasing, finalizing concepts and content	C. Hertneck
1.01	Released	09.01.2008	Final version, incorporated comments	C. Hertneck W. Russwurm



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